

REPLACEMENT CLAIMS

60. (Amended) A method of forming a microlens array for use in an imaging device, said method comprising the steps of:

providing a substrate having an array of pixel sensor cells formed thereon and a protective layer over the cells;

forming a spacer layer in contact with the protective layer;

forming a lens forming layer over and in contact with the spacer layer;

forming a microlens array from said lens forming layer; and

forming a radiation transparent insulation layer including silicon insulator material on said microlens array.

73. (Amended) A method of forming a microlens array for use in an imaging device, said method comprising the steps of:

forming a lens forming layer on an imaging device;

treating said lens forming layer to form a plurality of microlenses; and

depositing a radiation transparent insulation layer on each microlens at a temperature within the range of approximately 200° to 400° C, wherein the radiation transparent layer includes silicon insulator material.

87. (Amended) A method of forming a microlens array for use in an imaging device, said method comprising the steps of:

forming a lens forming layer of radiation curable resin on an imaging device;

patterning said lens forming layer to form a plurality of lens forming regions;

treating said plurality of lens forming regions with a radiation exposure step to form a plurality of microlenses; and

forming a transparent insulation layer including silicon insulator material on the plurality of microlenses.

99. (Amended) A method of forming a microlens array for use in an imaging device, said method comprising the steps of:

forming a lens forming layer on an imaging device, wherein the lens forming layer is a layer of material selected from the group consisting of optical thermoplastic, polyimide, and thermoset resin;

patterning said lens forming layer to form a plurality of lens forming regions;

heat treating said plurality of lens forming regions to form a plurality of microlenses; and

depositing a transparent insulation layer including silicon insulator material on the plurality of microlenses at a temperature within the range of approximately 200 to 400 degrees Celsius.